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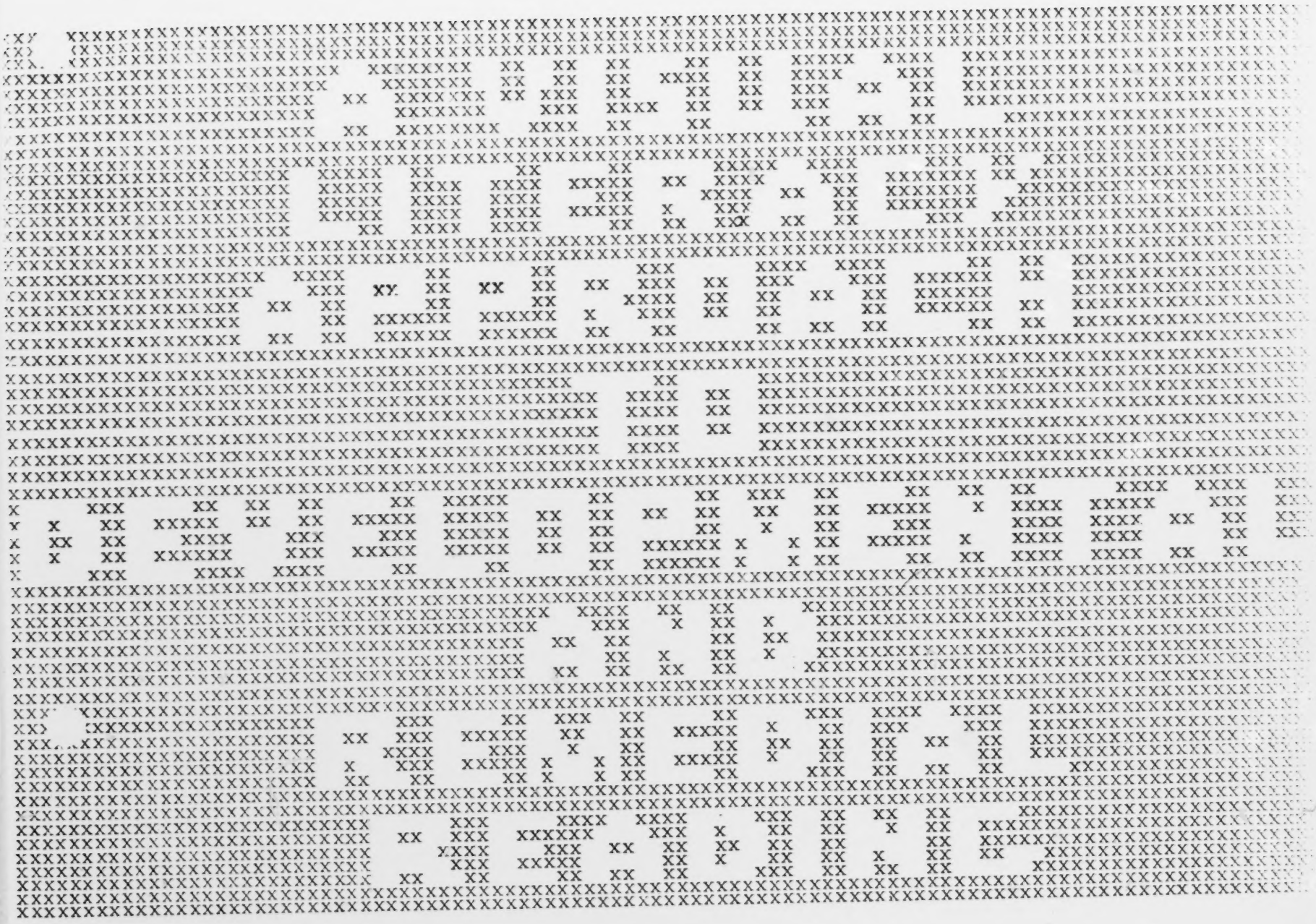
ABSTRACT

Photography, films, and other visual materials offer a different approach to teaching reading. For example, photographs may be arranged in sequences analogous to the ways words form sentences and sentences for stories. If, as is possible, children respond first to pictures and later to words, training they receive in visual literacy may help them learn to read. Ordering a series of photographs offers the child a chance to talk about what happens in the story. Then a child makes his own story. As he does so, he can condense each picture to a word or phrase. He learns new vocabulary. As his vocabulary increases, he becomes better prepared to deal with print. This method has the advantages of building new skills on the strong base of the student's innate or learned abilities, improving the child's self-concept, integrating cognitive, affective, and psychomotor elements into the reading program, using several media to help the child cope with his environment, and providing a strong stimulus for even very young and hard to motivate children. An appendix provides narration to a slide presentation explaining visual literacy. (JK)



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It is invariably a pleasure to address comments to teachers of reading. Reading teachers are members of a forward-looking educational fraternity that has accomplished amazing feats in the last few decades. The "A-B-C Method" of teaching reading began with the Greeks and Romans (perhaps it began even earlier) and persisted until the beginning of the current century. In 1450, those who taught reading to English-speaking youth used the Horn Book with its A-B-C method. In 1532, similar teachers taught from the A-B-C Book by Schulte. American New England schools saw the A-B-C Catechism give way to the New England Primer in 1690, and the avant garde taught the A-B-C's with rhymes whose content was taken from Biblical stories. Then, came the age of the "big sellers." Noah Webster brought forth his Webster's Spelling Book in 1783, which was still selling hundreds of thousands of copies yearly in the early 1900's. And, of course, William McGuffey's Eclectic Reader was brought out in six volumes in 1850. There are still people who teach from McGuffey's Eclectic Reader, but they are few among forward-looking teachers of reading.

The last few decades, however, have seen numerous changes, such as the rise in popular acceptance of linguistics, the initial teaching alphabet, electronic scanners, tachistoscopes, and the little box of graduated reading exercises that may be found in so many classrooms. Reading has moved in sound practical and theoretical directions in the last fifteen years. Sputnik I led parents, administrators, governmental officials, and editorialists to ask, "Why can't Johnny read?" As a result of this question, the reading teacher and the reading researcher

gained increased support from the public and private sectors. Despite the public scrutiny and criticism, and the diversity of methods, materials, and philosophical views, reading research and pedagogy have remained systematically progressive. Reading teachers' current methods are based upon scientific research, not merely upon pedagogical preferences. Reading has also been the leader in the individualization of instruction far in advance of the popularized trend in that direction.

Regardless of where you teach reading and regardless of the method you employ to make our citizens literate, you probably ask at times if there might be another way: a better way. Sometimes you may seek a new method simply to relieve the boredom created by using the same methods day, after day, after day. If so, here is a suggestion for an alternate instructional strategy that may be used in reading classes. Whatever system you employ must have certain benefits. The benefits of the strategy recommended here are that it:

1. Builds new skills on the strong base of the student's innate or learned abilities.

2. Improves the child's self-concept while he is learning developmental or remedial reading skills.

3. Integrates cognitive, affective, and psychomotor elements into the reading program.

4. Uses a combination of several media to help the child to become aware of and to cope with his natural and electronic environment.

5. Provides a strong stimulus for even very young and difficult to motivate children.

That certainly sounds like a mouthful of benefits, so let's examine the proposed system to see whether this system, or any system can really do all of these things.

THE VISUAL LITERACY APPROACH TO DEVELOPMENTAL AND REMEDIAL READING

1. BUILDING NEW SKILLS ON THE STRONG BASE OF THE STUDENT'S INNATE OR LEARNED ABILITIES.

One representative language which children need little or no training to read is the language of pictures. Juliam Hochenberg and Virginia Brooks of New York University published a limited study in the American Journal of Psychology[1] revealing that a child can recognize pictorial representations of solid objects without specific training or instruction. Indeed, by the time a child enters school, he has had wide exposure to pictures and has perhaps had informal training in interpreting their messages. The instructional strategy recommended here will build upon this ability in the child by using pictures as a primary form of representative language. This primary form of representative language will be used as the cornerstone for developing skills with the orthographic form of representative language which will be considered a secondary form.

Why might we consider pictorial representation as a primary form of language and verbal representation as a secondary form? We might contend that we understand through sight before we comprehend or express ideas through systematic sound patterns in language. We might contend that primitive man developed written language from the pictorial representations that preceded it, and use primitive hieratic languages as our support. All of this, however, would simply be a complicated manner of saying that pictures, being more directly representational, are at a lower level of abstraction than are serially

ordered letters on a page. Using pictures sequentially, we create a mode of expression similar to written language that gives the left-right serial ordering skills without the higher level of abstraction of printed language.

One capacity that may be lacking in deficient readers is the capacity to put ideas into an acceptable order. This incapacity for acceptable ordering may stem from uncommon orientation (such as right-left instead of left-right). Moreover, the skill of serially ordering visual data from left to right is necessary to the complex of skills required for reading. Dr. Marianne Frostig, renowned in the area of learning disabilities, recommends that visual sequencing "be practiced assiduously."[2] Therefore, the first step in our visual literacy approach to developmental and remedial reading will be the practice of visual sequencing. We will build the serial ordering ability on the child's already developed ability to recognize pictorial representations.

The child might begin his sequencing experiences by using comic strips in class. Comic strips are serially ordered to tell a story and to convey a succinct visual message, especially, for example, "B.C.," which uses very little verbal language. The child might talk about the stories that are told in various comic strips. He might be asked how he knows that certain actions represent various story elements. His response will be helpful when he comes to serially ordering more representative photographic pictures. After he has some experience in analyzing comic strips, he should begin using the first of four Kodak Photo-Story Discovery Sets for serial ordering.

The Photo-Story Discovery Sets can be manipulated into a variety of sequences, representing diverse childhood experiences in a manner that can end happily, sadly, or mysteriously. After the child has manipulated these sets into narrative sequences, he should be encouraged to talk about the visual experiences he has created. Thus he begins to associate visual narratives with a certain variety of verbal expression.

You may now be asking yourself, "Why does he suggest the use of a series of visuals, rather than the use of magazine, newspaper, or billboard pictures?" The most obvious answer is that the individual pictures used in conventional ways do not represent experiences sequentially. The advantage of serially ordering a sequence of pictures is that the resulting story can be scanned or "read" from left to right in a manner similar to reading printed words. The second reason for using sequences is a bit more complicated. The individual picture that purports to tell a whole story, encourages the unnatural act of sifting numerous details to gain additional meanings. James J. Gibson says:

> As a general rule, the individual explores, samples or scans the sea of energy around him for what this proximal stimulation will specify about its ultimate sources. There are special cases, of course: the human individual can visually scan a picture for its design, but what he is generally in search of is meaning. The esthete may practice discrimination and enjoy the structure of a painting or the composition of music, but this is a sort of perceptual luxury.[3]

Picture sequences similar to the Photo-Story Discovery Sets subordinate the perceptual luxuries to the search for meaning by allowing the child to assimilate the meaning of each visual component very

quickly. The child reads each visual component as a Gestalt, or total configuration. James McK. Cattell, an early researcher in reading, found that readers accept total words as Gestalts as well. He revealed that approximately the same amount of time is required to recognize a letter as is required to recognize a whole word.[4] Thus, the visual skills of "reading" a picture sequence are very similar to the visual skills required for reading printed words. Recent research has revealed that a reader does not even require the presence of all letters to recognize a word.[5] Therefore, if the hasty student overlooks some details in a picture, he retains the advantage of grasping the overall meaning.

A student will soon learn to manipulate the pictures within Photo-Story Discovery Sets into meaningful sequences. He may then wish to make his own pictorial sequences, using the Photo-Story Discovery Sets as models.

Student-made photographic visual sequences have many advantages over the Photo-Story Discovery Sets. A student will more readily respond to his own pictures because of his special familiarity with their form and content. When a child uses his own sequence, he is dealing with the world as he has seen it. Teachers who encourage students to make their own photo-visual sequences soon learn how differently each student looks at his experiences, his environment, and his relationships with other people. This knowledge is useful to the teacher and the student alike. In addition the child may be more fluent in speaking of his personal experiences

than he can be with the characters in the fictitious world of the Eclectic Reader. Doris May Lee says:

> There are several implications if schools are going to insure that each child can bring personal meaning to his reading:
>
> 1. More of the school time needs to be devoted to real experiences not already a part of those particular children's lives, to which each can bring meaning, thereby enriching each child's personal contacts with his world.
> 2. The school should help children explore and clarify their contacts with their physical and social world by providing opportunities to express them freely, both orally and in writing. (This may first be by pictures and dictation until the physical writing skills come more easily.)
> 3. Since each child is the only one who really knows what is mearingful to him, he must have free choice of what he is to read and write. This is just as important in the content areas of the curriculum as in "reading class." One cannot read "reading..."[6]

The student who records his school related experiences photographically in sequential form makes permanent certain elements of his real experiences, thereby providing stimulus cues for subsequent learning based on the same experiences. Now let us presume that each child has made a visual sequence. What is the next step in the visual literacy approach to developmental and rememdial reading?

Children will follow their visual sequencing or serial ordering experiences by identifying verbally the dominant feature of each element (individual picture) in the familiar visual process recorded. The child can explain his sequence to his classmates orally by condensing each picture into a word or phrase. This will

give the teacher an opportunity to understand more fully what the child is expressing in the visual sequence and will provide the teacher with information that will be useful when she transcribes the student's verbal counterparts to his visual stories.

During the oral exercises, the teacher may encourage the student to learn new vocabulary words, so that he may better talk about elements of his visual report. In this way, the child may learn new features of his environment, new vocabulary words, and develop a stronger self-concept through increased ability to deal with his environment.

2. IMPROVING THE CHILD'S SELF-CONCEPT WHILE HE IS LEARNING DEVELOPMENTAL OR REMEDIAL READING SKILLS.

A two-fold self-concept booster is in store for the child at the initial transcription stage in the visual literacy approach to developmental and remedial reading. At this stage, the child uses the teacher's services as a stenographer. The teacher may choose to transcribe the spoken verbal counterpart to the child's visual sequence into traditional orthography, the initial teaching alphabet, "English the New Way,"[7] "Unifon,"[8] "Words in Colour,"[9] "Phonetic Colour,"[10] or any other of the simplified and regularized writing systems. The format really makes very little difference to the child who is finally put in the position of using the teacher as a secretary. The teacher may choose to tape record the child's responses. This will provide the child with the sound of his own voice as well as a transcription of his words. The student may be given the final transcription to mount on cards. The photographs

of the child's experiences should be mounted on separate cards of an equal size. The child may then enter the next stage of visual literacy reading.

We may now presume that the child has two sets of cards. All of the cards in each set are equal in size. Probably there is an equal number of cards in both sets. We may also presume that the child feels more confident now because he has practiced manipulating the pictures into meaningful sequences, he has talked about the process depicted in the sequence, he has dictated a verbal equivalent to his visual story, and he has seen and perhaps heard the results of the transcription. In this state of mind, the child is ready for a challenging experience. This will be the experience of matching the verbal cards to the visual stimulus cues.

The child will now manipulate the components of his visual story into the appropriate order. He will then have a string of pictures that reads from left to right, under which he can place verbal cards to represent what is said in the pictures. This may require a period of repeated assistance for some time until the child learns the groupings naturally. Repeated practice of this exercise, along with a reading of the final results, will facilitate the immediate recognition of the orthographic Gestalts by correspondence with the visual Gestalts that are visual surrogates for an actual experience the child has had. Variations in this manner of exercise might involve the student in making picture-story books, photo-sequential magazine articles with verbal commentaries, or eventually making poetic sequences and writing equivalent verbal poetry. The poetic variety

of exercise is rather easy using i.t.a., because of the orthographic similarities of rhyming words.

Total class involvement in the visual-verbal correspondence problems can eventually lead to team efforts. In a two person team, the first member might flash a verbal card, while the second person would be encouraged to read the card and show the picture that best corresponded with the meaning of the written material. Later exercises might remove the verbal cards altogether and encourage the second person to write a verbal response to each picture the first person had used in a sequence. The first person would then be encouraged to read the writing of the second person, and to show the picture that corresponded with the written material. In this way, students become self-corrective and may learn cooperatively. Many alternatives for failure are offered under this system.

If one student has difficulty in creating verbal material, he may be consoled by the adequacy of his visual rendition. In some cases, a child may learn more by offering suggestions to other students regarding their visualizations or their verbalizations. In cases where a student has difficulties with the visual and the verbal elements of the program, he may find himself cast in a favorable role in someone else's visual sequence. The child who is haptic, and learns better through manipulative activities than through the eye, is given many opportunities to manipulate the cameras, the flashcubes, the other actors, and the resulting pictures and verbal story cards. This has the advantage of allowing for differences in cognitive style.

3. INTEGRATING COGNITIVE, AFFECTIVE, AND PSYCHOMOTOR ELEMENTS INTO THE READING PROGRAM.

We naturally concern ourselves with the content of whatever reading curriculum we adopt. This is especially important in that we cannot simply read the skill of reading. If Robert Gagne is correct, we might say as he does:

> One can select textbooks, motion pictures, laboratory equipment, even teachers; but one does not select content. It is derived from objectives....[11]

We are immediately confronted by the question, "What Objectives?"

Do we wish to choose the cognitive, the psychomotor, or the affective domain to begin with? We may immediately wish to eliminate the psychomotor domain from our considerations, for indeed what manipulation, physical coordination, or deftness of the hands is necessary for reading? In most cases, even the severely physically handicapped person can have a book propped in front of him to read. Although we will return to the psychomotor domain later, we will overlook it for now. This leaves us with the cognitive and the affective domains. Whenever the choice between the cognitive "know-how" and the affective "want to" arises, a story comes to mind.

Very often, in our office, copies of letters, reports, and other documents must be made to please various people. For a long time, it was my pleasure to go to the copying machine whenever a copy was needed, and to stand looking helpless before the complicated device. As often as this would happen, a kind-hearted secretary would always come to my rescue. Never, however, did my own secretary (shrewd little thing that she is) come to my aid. One day another

secretary asked her why she did not help me in my distress. My secretary simply winked and said, "Whatever turns you on!"

One morning after the encounter between the two secretaries, I came to the office extra early to finish an urgent report. I went to the copier and made three informational copies for several of the other fellows. While I was at the machine, my secretary, accompanied by the girl who had scolded her for lack of sympathy, stepped through the door and said, "You see. He really knows how. It's just that he doesn't want to!" So it is with students as well. They have to get the "want to" before they can use the "know how." Consequently, we may wish to begin with the affective domain that deals more with the "want to" than with the "know how."

The initial objectives to be achieved by teacher and student alike are those concerned with receiving (or attending) the information at hand.[12]

Receiving (or attending) is broken into three subcategories: Awareness (most passive), Willingness to Receive (more active), and Controlled (or Selective) Attention (most active because it implies that the child is in command most of the time). We may, therefore, wish to begin by designing reading objectives through the visual literacy approach to assure that the child is aware of the phenomena we stipulate. We might begin with home, family, and neighborhood environs. We may be surprised to find out what the child is, and is not, aware of what surrounds him daily. Allowing the child to take pictures freely in his home and neighborhood will reveal to the teacher what the child considers to be

important. In this way, the child who is hesitant to speak or otherwise communicate verbally, can reveal silently the meaningful elements of his environment.

Children who look at their environment through the vehicle of pictures can be stimulated by their classmates to see more in that environment. Children in Anacostia, outside of Washington, D. C., took pictures of their own homes in their first visual literacy exercises. Many of the pictures reflected the waste and poverty of the disadvantaged sections. Some children would ask their classmates, "What's all that junk in your front yard?" The other might reply, "That ain't nothing. That's just always there." We found that the children felt that their homes should be "dressed up" for picture taking. They felt a need to show less of the trash, chipped paint, and broken-down front porch steps than appeared in the first sets of pictures. Through uninhibited commentary, they learned to see their surroundings in new ways. They learned new vocabulary words to describe things that they saw every day, but seldom spoke of. Once the children are thus involved more deeply in their own experiences and environments through classroom and out-of-classroom experiences, they may be more receptive to suggestions that will expand their awareness and will hold their attention. Through visual literacy exercises these steps can be taken very quickly.

The authors of the Taxonomy of Educational Objectives present "Responding" as the next level of objectives in the affective domain. Responding is also divided into three subcategories:

Acquiescence in Responding, Willingness to Respond, and Satisfaction in Response. Response is an area in which visual literacy exercises meet with particularly evident success. Patrick Culhane at the Green Chimneys School in Brewster, New York, had a student who would not respond verbally in class. The child was evidently emotionally distrubed. But Pat was having difficulties in devising a strategy for breaking through the child's wall of silence. Finally, Pat began to use visual literacy exercises.

The child was given a camera and told to go out and to take pictures as he saw fit. The child did so, though he gave no external signs of pleasure. When the pictures were developed, Pat was surprised to find that the child had photographed the backs of people, the backs of barnyard animals, and in general had none of the subjects of his pictures facing him. Pat began to probe into this phenomenon by asking the child why the subjects of his pictures were all looking the other way. In his first verbal responses in class, the child revealed that everybody treated him that way. Nobody paid attention. The child was given increased attention. He is now making giant steps towards more socially acceptable behavior. This is, of course, only one of numberous examples of the ways in which pictures can reveal aspects of the internal world of a child that are highly relevant to his learning experiences and his abilities to verbalize the meaningful experiences in his life.

We feel that a child will respond to familiar elements in his life, because he will find relevance in learning from what he already knows in part. Naturally, a child attaches affective

importance to the familiar. The visually familiar, therefore, serves as a painless avenue into the unfamiliar visual experiences that occur in reading. As the child recognizes meaning in undifferentiated visual forms in his environment, so he may be able to attach meanings to undifferentiated word forms on the printed page. This is especially true if he can associate the undifferentiated environmental visual cues with the undifferentiated orthographic visual cues. As the child progresses to more difficult analytical skills in the hierarchy of objectives, he may proceed to more differentiated and generalizeable reading skills such as the recognition of phonetic or visual patterns, transcription of the spoken word into i.t.a. or traditional orthography, and so forth.

Because of what we have already observed in the responses of children to visual literacy experiences based upon familiar elements of the child's visual environment, we feel that the child will reach the state of satisfaction in responding very quickly. Also, because of the affective pull of familiar visuals, the child is able to proceed to the next levels of affective objectives which are valuing and commitment. Predicated on the levels of valuing and commitment are the levels of conceptualizing and organizing value systems. If the child is reading and abstracting materials relevant to his living situation and environment, he may be simultaneously learning value systems relevant to the materials with which he is dealing, and hence to his living situation and environment.

Moreover, the child will be able to transfer what he learns in the reading class to the situations he faces daily. This

is a most important element of the visual literacy approach to developmental and remedial reading. The child who carries elements of his environment into the reading class, and inversely from the reading class into his environment, will know how reliable and valuable his reading skills are. The child already knows that few people make a living by sitting at a desk and reading all day long. Hence, he may develop favorable attitudes towards reading if reading is held in the proper perspective in the school setting. In real life, the child will learn to fall back on reading when he is in need of information or entertainment -- if his school program has taught him the relative (rather than absolute) importance of reading in respect to his other activities. Thus the child intuitively learns an even higher affective objective, which is the ability to generalize from his newly learned skills.

The achievement of affective objectives through the use of visual and verbal materials may be augmented if the teacher wishes to tape record the student's dictation of his verbal equivalents to visual materials. When the student is learning to match the visual and verbal materials, he may use the additional stimulus of his own voice on the tape recording. This will not only enhance the learning of the cognitive reading skills by combining orthography with its aural counterpart, but will also facilitate the achievement of some of the affective objectives by the child's use of his speaking and listening skills with regard to language.

Let us now turn our attention to the objectives to be established and achieved in the cognitive domain, beginning with

knowledge. The first cognitive objectives, therefore, may involve the knowledge of specifics and the knowledge of terminology. The knowledge of specifics is the base upon which verbal literacy skills are built in the visual literacy approach to developmental and remedial reading. We presume that the child already knows something about the environment in which he lives. By associating terminology with the photographed specifics of his environment the child may be standardizing the language he speaks which, will facilitate reading over the long term.

The child will learn to observe new elements of his environment through his use and manipulation of visual literacy materials. These new discoveries may be accompanied by the learning of new terminology to describe them. As discoveries stimulate the learning of new vocabulary words, the child becomes better and better prepared to deal with printed materials. These can be made through transcription and tape recording. The objectives at the level of dealing with specifics and terminology couple very nicely with the next two levels of objectives which encompass specific facts and ways and means of dealing with them.

Ways and means of dealing with specific facts are evidently inseparable from the facts themselves. We recognize that each person perceives and interacts with his environment uniquely. The specific facts one is able to retain in his memory are directly related to the proprioceptive apparatuses through which they were transmitted to the individual's brain. Through the visual literacy approach to developmental and remedial reading, there are vocal,

visual, and orthographic renditions of the specific facts the child comes to know. By using sight, hearing, and the kinesthetic apparatuses involved in manipulating visual literacy materials (cameras, film, picture sequences, and word cards), the child has many sensory experiences to bring to his understanding of the specific facts encompassed by his reading program. This not only helps the child to learn the reading skills more thoroughly, but also helps the child to understand better the process nature of the world around him.

Following the knowledge of specific facts, and the ways and means of dealing with them comes the objectives of learning to know conventions. Through the instructional strategy recommended here, the child will learn to know the conventions of visual as well as verbal expression. He will learn to use gesture, posture, facial expression, and motion in much the same manner as he learns to know idioms, phrases, sentence structure and other verbal conventions. This benefits the child by giving him the opportunity to choose from a wide variety of alternate patterns for expressing his ideas. This may also enrich the child's vocabulary, as he will perhaps choose to describe visual features of certain processes when he writes, without the assistance of visuals, and in other phases of his learning to read.

The use of Photo-Story Discovery Sets may be very advantageous in the teaching of sequencing or serial ordering skills. Through their use, the child can manipulate pictures into narrative, descriptive, or expository sequences. The sequences may,

in turn, be used as cues for telling orderly stories about the characters who are represented in the pictures. If a child can visualize sequential processes, he may enhance his skill of ordering ideas in impromptu speaking. This will naturally lead to increased ability in ordering ideas for reading and writing. When the child has progressed to the level of dealing with the higher order objectives of comprehension, translation, and interpretation, the serial ordering skills may play a very important part.

Classifications and categories may be learned through the Visual Categories Discovery Set, a new visual literacy tool from Eastman Kodak. This set comprises many pictures of apparently unrelated people, animals, and objects. Children using the Visual Categories Discovery Set may record the meanings of various visuals for them. The recorded data will help the teacher to understand how the child perceives his world, and what his perceptions mean to him. The child may then use the sets to practice grouping visual data into various categories based upon the meanings that each conveys to him. Grouping exercises with the Visual Categories Discovery Set may be accompanied by single word association games. The children may practice matching certain visual cues with single word descriptions of what each individual picture represents. This exercise serves as a natural prelude to the matching exercises the child will encounter farther along the learning path.

The objectives concerned with comprehension, translation, and interpretation may correspond with the currently employed reading systems. If a teacher uses i.t.a., "English the New Way," "Unifon,"

"Words in Colour," or "Phonetic Colour," the path is clearly marked as to the methods used for introducing phonics, sound-letter correspondences, Gestalt patterns of visible words, scanning and the like. We may refer to Gagne and say that our objectives in the cognitive domain will be the best guides for helping us to choose the media and techniques we will employ to help the child to achieve those objectives.

The last behavioral domain, the psychomotor domain, is the one least considered in the development of more traditional reading programs. This is ironic because children are so active, vital, and vibrant that it is sometimes difficult to keep them in their seats. Creating psychomotor objectives for the reading program might be very difficult. However, we can keep in mind that growing little bodies need to be given some latitude for movement, exercise, and involvement in whatever reading program we design. For this reason, the visual literacy approach to developmental and remedial reading seems particularly appropriate, as it gives children the ability to record and abstract the motions and activities that are a usual part of their everyday lives. In addition, the visual literacy exercises allow children to use those psychomotor experiences as the base upon which they can build their reading skills. By placing reading in perspective to the other activities of the day, we give the child a realistic orientation to the relative importance and time that reading will occupy in his adult life.

4. USING A COMBINATION OF SEVERAL MEDIA TO HELP RELATE THE CHILD TO HIS NATURAL AND ELECTRONIC ENVIRONMENT.

This visual literacy approach to developmental and remedial reading, therefore, gives the child a new medium for expression, gives him a springboard for the development of reading skills, and provides for him alternate avenues for self-expression that will facilitate his development of a favorable attitude towards learning in general. The visual literacy approach is not an entire reading curriculum, but offers a strong and flexible instructional strategy which may become a part of reading curricula in many classrooms. Through the visual literacy approach the child learns to read both the print and picture-oriented media that are the governing informational sources in our global village.

ENDNOTES

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APPENDIX I

WHAT IS VISUAL LITERACY?

Our definition of visual literacy begins with the word "literacy." Literacy, of the verbal sort, has been important since the emergence of sentient man.

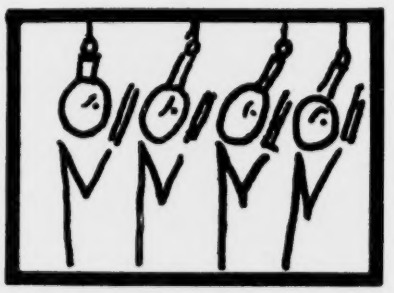
After sentient man learned to control his emotions in some measure, he began to utter sounds systematically to represent his ideas and feelings.

The systematic language sounds were soon represented in writing, and man became literate.

Literacy was first the magical possesion of tribal witches, shamans, medicine men, priests, and chiefs. Later,

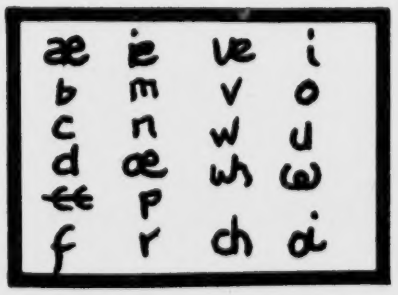
literacy was the mark of the ruling classes, which appointed scribes and copyists to do their literate recording. Finally, the scribes of the ruling classes and the religious elite became scholars--and the literate fraternity to which we now belong was born.

Today, one must be literate to participate fully in our democratic heritage.

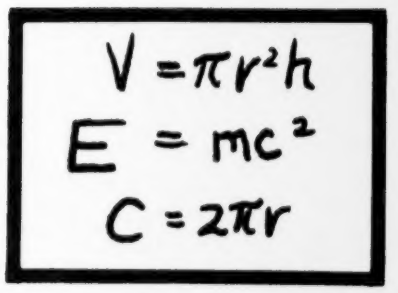


We generally consider literacy to be the perception, comprehension, and manipulation of symbols. These symbols may represent...

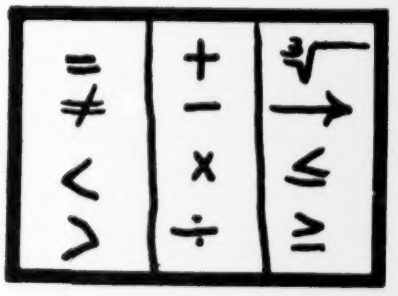
sounds, as do the forty-four characters of the initial teaching alphabet. They may represent...



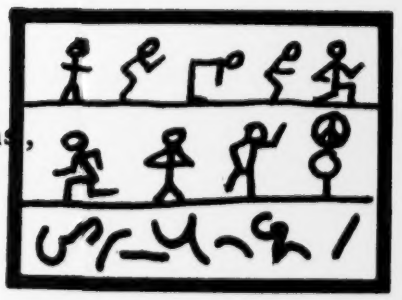
quantities, as do mathematical number symbols. The markings may represent...



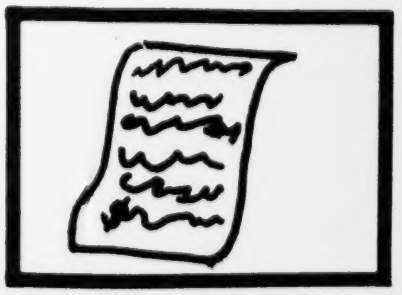
operations or functions, or, at the least abstract level, they may represent...



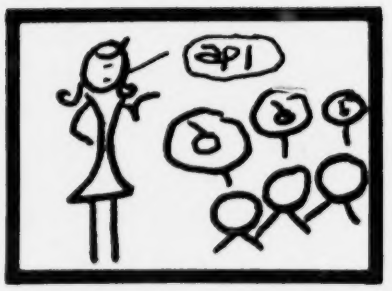
visible phenomena, as do Indian picture writing, hieroglyphics, maps, charts, or blueprints. When we can read these symbols with understanding and can use them as vehicles for our intentional communications, we are considered literate.



As Martin Dworkin of Columbia University might say, "We are literate when we take responsibility for meaning."

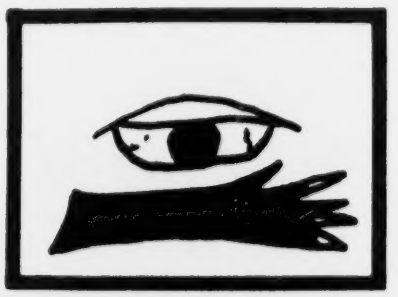


Twentieth century children must take responsibility for visible as well as verbal meaning. Doubtless you have heard a good many statistics concerning visuals and the life of the child already.



In visual literacy experiences, children will learn to understand visual communication better by learning to express themselves visually.

Let's look into the eyes of children to see what will bring them...



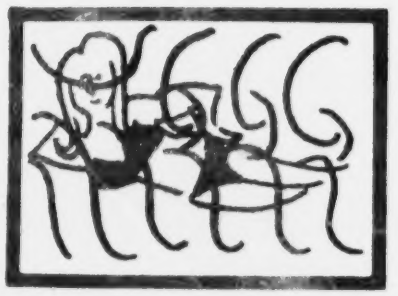
VISUAL LITERACY?

STILL PICTURES

Photographic print sequences will be a point of departure for us in examining "visual literacy" and other visual aspects of education. Photographic sequences may be even simpler than a photographic print. Why?

Physiologists and psychologists reveal that children do not report the fine details of their environment until they are 6 to 8 years old. This "global" or undetailed state of vision persists until about the ninth or tenth year, when the child is minimally capable of integrating the details into a whole pattern.

In a visual sequence, each photographic unit delivers its message with only a brief glance from the viewer. In a single photograph, the viewer must sift and sort visual details until the full message is uncovered.



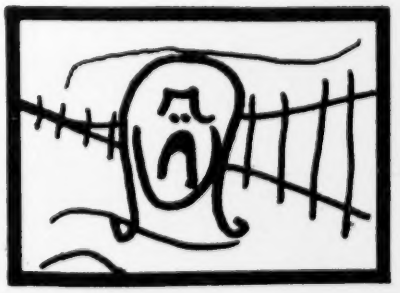
Let us see how much of a visual task it is to discriminate and understand the meaning of a visual sequence. (Here we show the adventure sequence from MAKING SENSE VISUALLY--the boys getting caught in the condemned building).

Such a complete visual sequence such as we have just seen may be equivalent to more conventional essays or compositions that we usually see in verbal form. A child creating a visual essay is ordering and manipulating elements of his visual environment in much the same way as he would manipulate words to create a verbal essay.

Each child brings with him a particular array of visual skills when he enters your classroom. To help us understand what these skills are in our students, we use KODAK Photo Story Discovery sets.

The children use Photo-Story Discovery Sets to create visual stories. There are no right or wrong ways to create meaningful essays with these pictures. A child will express himself in whatever visual pattern is most suitable to himself. When he has ereated a visual essay, you may encourage him to verbalize about his story.

You will find children creating "conventional sequences" that occur frequently from child to child. Some children, however, have visual ideas that are quite different from what most children express. You do not have to regard the unique patterns as deeply revealing of psychological states. You may accept them as different, and use the child's early patterns to help him build increasing awareness of the process of visual communication.



At this point, you may take a Photo-Story Discovery Set and work with it. See whether you can put the pictures into narrative or descriptive sequences. When you find a narrative or descriptive sequence, see if you can create alternative endings for your story. Try minor changes in the order of the pictures to see how the story is affected.

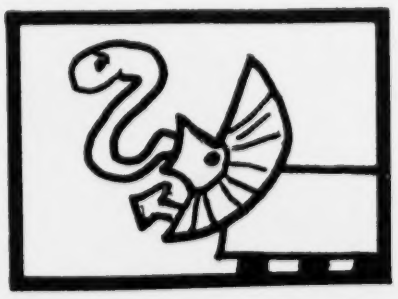
CAN YOU SEE WAYS IN WHICH PHOTO-STORY DISCOVERY SETS WILL BE USEFUL IN YOUR CLASSROOM?

PRACTICUM

Children will learn quickly the ways in which visuals communicate.

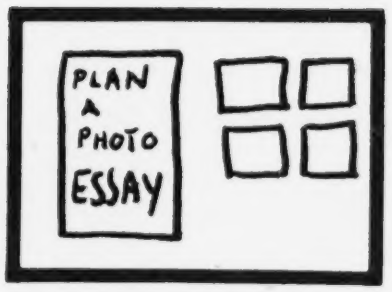
Their first attempts to use a camera in making visual sequences should use either black-and-white or color prints. Thus, the child will have a tangible result of using the camera. But his tangible result will be private. If the child has failed (which is unlikely in light of modern box-camera technology), he need not share that failure with anyone else.

If he has succeeded, he may choose to show his pictures to others.

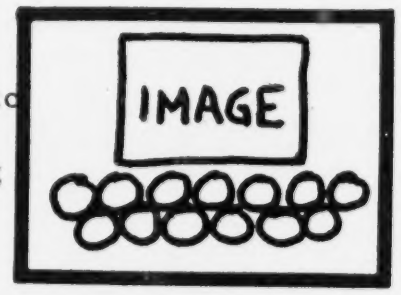


NOTE: Teachers of READING or ELEMENTARY GRADES should read: THE VISUAL LITERACY APPROACH TO DEVELOPMENTAL AND REMEDIAL READING.

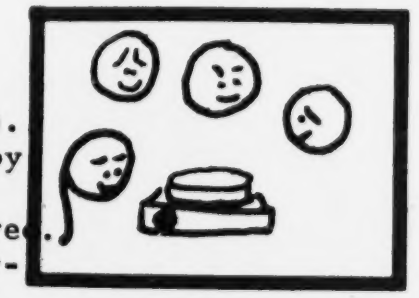
Soon, the child will learn to plan his visual sequences before making them with his camera. Planning visual sequences is accomplished with the help of a planning board and storyboard cards for outlining the information to be contained in each visual in a sequence.



When the child has learned to plan, take and manipulate picture sequences, he may be encouraged to make color slide sequences. These sequences may be shown to the entire class or to other classes in the school. The child may first show his sequence without uttering a word.

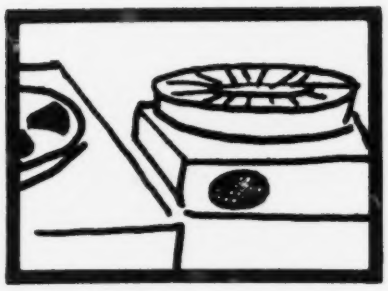


Then, classmates may be encouraged to write the story they think is portrayed in the student's slides. The student will then show his sequence accompanied by the narrative he has prepared. Invite the students to discuss the ways in which their impressions differe They will learn to understand the variations in interpreting a stimulus.



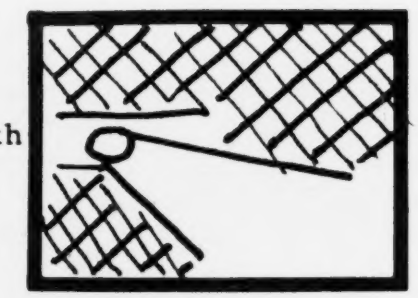
You will find a few student-made slide presentations memorable enough to be worth preserving. But you won' always have the student there to present his inimitabl narrative.

You can preserve the child's presentation by making it into a completely automated package. For creating the automated slide-talk, you will use one of several combinations of simple equipment. You may use a Carousel or Ektagraphic slide projector, a KODAK Sound Synchronizer and a stereo tape recorder.



You may wish to assure portability by using a cassette tape recorder instead of a stereo unit. You simply record the child's voice, as you normally would, and press the pulsing button to advance each slide. The slide advancing pulse will not be heard when you play the recording back again.

Thereafter, any time you want to present the child's slide talk, you merely yoke the slide projector and tape recorder together and play the child's voice with his pictures.



You will probably observe an increased penchant for verbal communication among children who use these visual media as a regular part of their school work. That may be one of the objectives you were trying to achieve. In addition, you may perceive that children are more interested and enthusiastic about the work they are doing. Don't be frightened. They may eventually return to normal.

Your students may express interest in motion pictures. They may also pressure you to begin film study and filmmaking in the classroom. In fact, you will be able to begin the fundamentals of movie making before you even begin to deal with movies.

Take a step with slide sequences that gives the illusion of motion. Use the KODAK Dissolve Control Unit. The dissolve control unit gently fades one picture into the next to create soft transitions. A rapidly dissolving show gives the illusion of motion.

Since the dissolve control unit can be actuated by almost any device that is compatible with a Carousel or Ektagraphic slide projector, you may use the same sound equipment you used with your Carousel or Ektagraphic slide projectors. Let's look at a dissolve show.

BLANK

DEMONSTRATION

DISSOLVE SHOW

DISSOLVE SHOW

MOTION PICTURES

Dissolve shows are particularly applicable to curriculum, in that they may be paced according to the student's judgment. If the music or narrative that accompanies the dissolve show requires more time at one point than at another, the student will be encouracged to increase the number of visuals, or to edit the narrative, or to exercise aesthetic judgment in other ways.

Slide tapes and automated dissolve shows require the integration of numerous disciplines. The student is encouraged to think about visual design, the appropriateness of certain forms of music, the pacing of the presentation, the tone, diction, and style of the verbal utterances and the technical processes of integrating all of these elements.

The child who has mastered the basic skills of communication through still pictures may be ready to begin expressing himself through motion pictures.

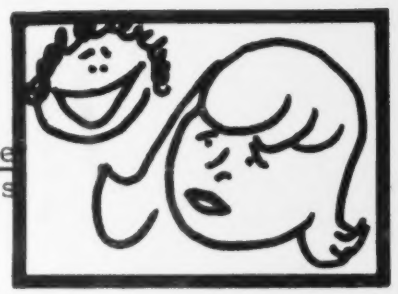
The student's first experience with motion pictures should exclude sound of any sort. The student must accustom himself to the use of motion in the picture. He will find that people tend to "freeze" in front of the camera lens, which restricts his visual utterance in the motion picture medium.

DEMONSTRATION FROM
MOVIES MOVE PEOPLE

(EMPHASIZE IRRELEVANCE OF WORDS)

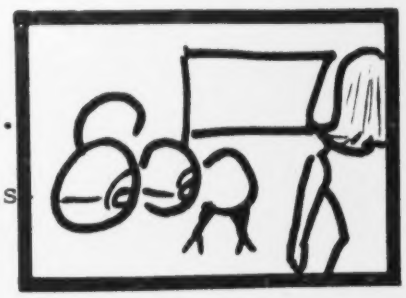
The student should also be encouraged to use simple equipment in the beginning. If he is given a motion picture camera with knobs to twiddle and buttons to press, he will become so carried away with KNOB TWIDDLING and with BUTTON PRESSING, that he will scarcely give a thought to the message he intends to communicate.

We must keep in mind that visual or verbal or any other communication tools are vehicles for ideas and are not effectively used unless they convey some rational or aesthetic message. Surely not all ideas lend themselves to visual expression.



Nor do all ideas lend themselves to verbal, or musical, or memetic forms of expression. Students must examine their respective ideas, determine the media through which the ideas may be effectively expressed, then ascertain what steps they may best take to make their message attractive, succinct, and worthy of note.

If you are worried about the amount of technical acumen you must bring to bear in making the students' curriculum visual, you may dispel your fears. By starting with simple equipment and plain ideas, you can guide the children into more and more sophisticated presentations very gradually.



Today, you will be doing the same things your students will do. You will form groups of three to six people. Each group will take one still camera and one movie camera. Then, your group will go out and develop visual presentations.

By sharing your ideas on a particular theme, you will determine the nature of your individual presentations. Each person will have one roll of still picture film and one roll of motion picture film. Each person will take the opportunity to expose both of his rolls of film.

Use the same storyboard plans for your movie that you use for your still picture sequence. On the appropriare square on the storyboard card, sketch a picture of the scene you wish to depict. Then write any pertinent instructions or comments beneath the sketch. Keep in mind that storyboard cards are helping you to write in a visual language. You must make each step in the flow of visual ideas as clear as possible.

Each card will represent one picture in the still picture sequence. When you make your movie, each picture card will represent one shot with the camera. The shot will be a sequence of action recorded in the continuous exposure. Before exposing the film on each shot, perform a "dry run" of the action. If the dry run looks all right through the finder of the camera go ahead and shoot the "real thing."